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EXAMINER

HAMILTON, ISAAC N

ART UNIT

PAPER NUMBER

3724

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application N .

10/026,099

Applicant(s)

APFEL ET AL.

Examiner

Isaac N Hamilton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 02.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the bead-like embossments that have a depth which decreases/increases from the radial ends to the fastening opening, in claims 8 and 9, and the bead-like embossments that have a width that is uniform in a direction toward the radial ends, in claim 10, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Specification*

2. The incorporation of essential material in the specification by reference to a foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

*Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 7, 12-14 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Freedlander et al (3,343,351), hereafter Freedlander.

Regarding claim 1, note main body 21; central fastening opening 26; blade sections extending radially beyond mounting holes 27 and 28 in figure 2; edges 22, 23, 24, 25; cutting edges 24 and 25; bead-like embossment 29; extending at a 0 degree angle as seen in figure 2; longitudinal axis of the blade section in the middle of embossment 29 in figure 2, also the longitudinal axis is located juxtaposed between the lead line of 29 and the body of the blade in figure 3.

Regarding claim 7, the depth is uniform over the length of the blade sections as described in column 4, lines 5-14, which states that the depth is 1/8 in. over the length of the embossment 29; the depth is approximately one-half of the material thickness of the cutting blade as shown in figure 3.

Regarding claim 12, note the embossment 29 has a length equal to one-fourth of the blade section in column 4, lines 9-11

Regarding claim 13, note there are two bead-like embossments 29 in figure 2.

Regarding claim 14, note that the embossments are on two sides of the blade sections in figure 3. The point at which the lead line from 29 meets the cutting blade is approximately the center of the blade section. Note that the embossment is disposed on the right side and the left side of the blade section in figure 3.

Regarding claims 17 and 18, note radially outer/inner edges on the opposite sides of cutting edges 24 and 25. These radially outer/inner edges are embodied as additional cutting edges in column 2, lines 60-62.

Regarding claim 19, note the changing contour from a sharpened edge 25 to a blunt edge located adjacent to the arrow labeled "3" in figure 2; radially outer end is radially outermost part of the blade section in figure 2; central portion 21. The radially inner edges occur on the opposite sides of the blade sections from cutting edges 24 and 25 as cited in column 2, lines 60-62. The structure of the radially inner edges is identical to the cutting edges 24 and 25.

5. Claims 1, 7 and 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Andersson et al (4,594,843), hereafter Andersson.

Regarding claim 1, note main body 2; central fastening opening 1; blade sections to the right and left of fastening opening 1 in figure 1; edges surrounding main body 2 and 6; cutting edges 7; bead-like embossment 3; longitudinal axis is perpendicular to arrow labeled "A" in figure 1; angle of 0 degrees to longitudinal direction of blade sections in figure 1.

Regarding claim 7, note uniform depth of embossment 3 in figure 2; material thickness of 2 and depth of embossment 3 in figure 2 are approximately equal.

Regarding claim 12, note the embossment 3 is approximately three-fourths the length of the blade section in figure 1.

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Regarding claim 13, note two bead-like embossments in figure 1, one on either side of the central fastening opening 1.

Regarding claim 14, note that the embossment runs in the middle of the blade section in figure 1; the embossment 3 is disposed on two sides of the blade section.

Regarding claim 15, note circular disk-shaped embossment 3 surrounding fastening opening 1 in figure 1.

Regarding claim 16, note in figure 1 that the diameter of the disk-shaped embossment 3 is approximately three times as large as a diameter of the fastening opening 1; bead-like embossments merge into circular disk-like embossment.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freedlander in view of Rosenberg (2,799,985).

Regarding claim 2, Freedlander discloses everything as noted above, but does not disclose radial ends that have the shape of a circle. However, Rosenberg teaches radial ends 13 that have the shape of a circle in figure 2. It would have been obvious to provide radial ends that have the shape of a circle in Freedlander as taught by Rosenberg in order to make the blade safe to use. Note column 2, lines 9-14.

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Regarding claim 3, the radius of the path of the cutting blade is the radius of the apex 17 of the radial ends. Since the radius of the apex 17 of the outer ends is larger than the outer corners 19 of the cutting blade, the radius of the radial ends is less than the radius of the path of the cutting blade. Note column 2, lines 5-8.

Regarding claim 4, note trapezoidal tapering in figure 2 of Freedlander.

Regarding claim 11, note width of embossment 29 decreases in a direction toward the radial end in figure 2 of Freedlander.

8. Claims 2-6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson in view of Rosenberg.

Regarding claim 2, Andersson discloses everything as noted above, but does not disclose radial ends that have the shape of a circle. However, Rosenberg teaches radial ends 13 that have the shape of a circle in figure 2. It would have been obvious to provide radial ends that have the shape of a circle in Andersson as taught by Rosenberg in order to make the blade safe to use. Note column 2, lines 9-14.

Regarding claim 3, the radius of the path of the cutting blade is the radius of the apex 17 of the radial ends. Since the radius of the apex 17 of the outer ends is larger than the outer corners 19 of the cutting blade, the radius of the radial ends is less than the radius of the path of the cutting blade. Note column 2, lines 5-8.

Regarding claim 4, note trapezoidal tapering manner of radial ends 4 in figure 1 of Andersson.

Regarding claims 5 and 6, note in Andersson double trapezoidal shape of blade sections when knife portion proper 6 is attached. Note radially inner edges, which are crossed by the lead

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line of element 8 in figure 1; radially outer edges adjacent to the radially inner edges; radial ends juxtaposed between cutting edge 7 and radially outer edges. Note horizontal line is longitudinal axis of blade sections. Note that the angle between a horizontal line and the radially outer edges is approximately twice as large as the angle between a horizontal line and radially inner edges as seen in figure 1 of Andersson.

Regarding claim 10, note uniform width of embossment 3 in figure 1 of Andersson.

9. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson in view of Rosenberg as applied to claims 2-6 and 10 above, and further in view of Rountree, Sr (2,651,159), hereafter Rountree.

Regarding claim 8, the combination of Andersson and Rosenberg disclose everything as noted above, but does not disclose a depth that decreases. However, Rountree teaches a depth that decreases 50 in figure 4. It would have been obvious to provide a depth that decreases in the combination as taught by Rountree in order to make the embossment more aerodynamic, which increases the rotational speed of the blade.

Regarding claim 9, the combination and Rountree discloses the claimed invention except for a depth that increases. It would have been obvious to one having ordinary skill in the art at the time the invention was made to increase the depth of the embossment, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

### ***Conclusion***



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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Klas et al, Lee and Kuborn et al are cited for similar structure; Howard and Thorud et al are cited for embossments; Doi et al and Castleman are cited for disk-like embodiments; Ely is cited for radial ends having the shape of part of a circle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac Hamilton whose telephone number is 703-305-4949. The examiner can normally be reached on Monday thru Friday between 8am and 5pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 703-308-1082.

In lieu of mailing, it is encouraged that all formal responses be faxed to 703-872-9302. Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is 703-308-1148.

  
IH

March 5, 2003

  
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